MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ___
no ___

Property Name: SHA Bridge No. 1603800, MD 212 over Indian Creek Inventory Number: PG: 61-27

Address: Powder Mill Road (MD 212) Historic district: ___ yes X no

City: Greenbelt Zip Code: 20770 County: Prince Georges

USGS Quadrangle(s): Beltsville

Property Owner: State Highway Administration Tax Account ID Number: ___

Tax Map Parcel Number(s): ___ Tax Map Number: ___

Project: Reevaluation of Highway Bridges Statewide Agency: FHWA/MD SHA

Agency Prepared By: KCI Technologies, Inc.

Preparer's Name: Kim Sebestyen Date Prepared: 10/16/2009

Documentation is presented in: Project Review and Compliance Files

Preparer's Eligibility Recommendation: X Eligibility recommended ___ Eligibility not recommended

Criteria: X A ___ B X C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

Complete if the property is a contributing or non-contributing resource to a NR district/property

Name of the District/Property: ___

Inventory Number: ___ Eligible: ___ yes Listed: ___ yes

Site visit by MHT Staff ___ yes X no Name: ___ Date: ___

Description of Property and Justification: *(Please attach map and photo)*

SHA Bridge No. 1603800 (MIHP No. PG: 61-27) is located in Beltsville and carries MD 212 over Indian Creek in Prince George's County. Indian Creek is a tributary stream of the Northeast Branch of the Anacostia River, which flows into the Anacostia River at Hyattsville. The bridge is located in a partially wooded area with a few modern office buildings and businesses on the west side of the bridge.

The two-span concrete slab bridge was built in 1937 and carries one lane of traffic in each direction. MD 212 runs east-west and is classified as an Urban Minor Arterial roadway. The ADT as of 2006 was 35,421 and the future ADT is expected to be 40,840 by 2026. The current BSR rating for the bridge is 77.6 (SI&A Report 2007).

Background

The Interagency Historic Highway Bridge Inventory Committee (HHIBC) considered the 1995 MIHP form and subsequently determined Bridge No. 1603800 to be eligible for the National Register of Historic Places (NRHP). The Maryland Historical Trust (MHT) concurred with the determination in 2001 as a significant example of its type eligible under NRHP Criterion C.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ___ **Eligibility not recommended** ___

Criteria: ___ A ___ B ___ C ___ D **Considerations:** ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments: Information purposes only – Bridge remains NR-eligible

Tim Tamburrino 5/14/2010

Reviewer, Office of Preservation Services **Date**

Reviewer, National Register Program **Date**

SHA Bridge No. 1603800 was re-evaluated for NRHP eligibility as part of the 2009 statewide re-evaluation of the eligible bridges in SHA's Historic Highway Bridge Inventory. SHA requested that KCI conduct research to gather information and provide additional analysis of each of the bridge's integrity and significance to supplement the original NRHP evaluation. KCI conducted additional research at SHA's Office of Structures (OOS) to gather information on alterations and repairs that have been made to the structure. The following files at OOS were reviewed by the architectural historians and engineers: Bridge Inspection Reports (BIR), repair history files, SHA Bridge Plans, the Bridge Inspection and Remedial Engineering (BIRE) Worklist, and Structure Inventory and Appraisal (SI&A) reports. A KCI architectural historian visited the bridge to examine and document current conditions with field notes, digital photography, and black and white photography. For evaluation of the bridge's historic significance and NRHP eligibility, KCI consulted the original MIHP form, Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report, A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15, and "NR Bulletin 15: How to Apply the National Register Criteria for Evaluation."

Evaluation and Justification

The MIHP form stated that SHA Bridge No. 1603800 retains integrity of design and material and that it has had no major alterations and was in good condition according to the May 1995 inspection report. Inspection reports from 1995 through 2008 indicate that deterioration of the concrete has been progressing during the period; however, no major alterations have been made t the structure. The bridge is located adjacent to the Beltsville Agricultural Research Center (BARC), which was determined eligible for listing in the NRHP in 2000. The 1937 bridge, built concurrently with BARC's expansion in the 1930s and 1940s, likely supported this expansion by providing a safe and modern route into the facility from the surrounding major roadways.

The superstructure was given a rating of 6 in the 2007 BIR; this rating has remained the same since 1995. The 2009 field survey noted that the walls have minor cracking and spalling with some visible aggregate and rusted rebar. Modern W-beam guardrails were attached at each of the corners by bolting them through both sides of the walls. The parapet walls have a non-standard desig with Streamline Moderne influence (MIHP form, SHA Bridge Plans 1937). The underside of the deck has some minor cracking a well as a few larger cracks with efflorescence and dripping stalactites. Previous concrete repairs under the deck are cracking.

The substructure was given a rating of 6 in the 2007 BIR; this rating has remained the same since 1995. The pier has deteriorating concrete on both ends. The north end of the pier is scaled at the top back to the slab and has cracks and heavy efflorescence. The metal pier nose cap is exposed and heavily rusting. The south pier has heavy deterioration of the top two feet of material with exposed rusted rebar. There is heavy efflorescence, cracking, and rust stains across the front of the pier. There are cracks and efflorescence across both sides of the pier. The abutments have several full-height, open cracks and moderate scaling, with scour along the waterline. The wingwalls have minor cracking and efflorescence.

The deck was given a rating of 6 in the 2007 BIR report; this rating has remained the same since 1995. SHA Bridge Plans and th field survey show that the deck is a super-elevated deck. The bituminous riding surface of the deck is generally in good condition with minor cracking. The curbs have minor cracking, scaling, and some aggregate visible. The north side curb has a large spall with rusted rebar protruding located near the span joint.

SHA Bridge No. 1603800 is located between Baltimore Avenue (US 1) on the west and Beltsville Agricultural Research Center (BARC) on the east. BARC, one of the biggest agricultural research centers in the US in the twentieth century, was established in 1910 and was determined eligible for listing in the NRHP in 2000. BARC is comprised of several experimental farms that encompass 6,582 acres of land. MD 212 links US 1 to the Powder Mill Road entrance to BARC and would have provided a

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ **Eligibility not recommended** _____

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments:

_____ _____

Reviewer, Office of Preservation Services **Date**

_____ _____

Reviewer, National Register Program **Date**

driving route between portions of the center located west of US 1 and those located to the east. The oldest portion of the center, Central Farm, was constructed in 1910 and is located adjacent to the east of the bridge. Other sections of the center, North Farm and Linkage Farm, are located to the west of Central Farm and were developed in the 1930s and 1940s by Depression era programs (MIHP form).

SHA Bridge Plans show that Bridge No. 1603800 replaced an earlier bridge in this location. The current bridge was constructed i 1937 during a period of extensive growth of the farms at BARC. During the 1930s, many new buildings were constructed at the center and research in animal diseases, entomology, and plant studies were undertaken, as well as the development of the Food an Drug Administration, the Forest Service, Soil Conservation Service, and Environmental Protection Agency. Other entities such a: the National Aeronautics and Space Administration, Office of Naval Research, and the University of Maryland also conducted research at BARC during these years (USDA website). As the development of the farms increased and more employees were commuting to work at BARC, the infrastructure of this area would have needed to be upgraded to cope with the increase in traffic. MD 212 would have provided an important commuter route between parts of Beltsville and the BARC campus, as well as a link between the separate farms.

By 1937, the use of standard plans for bridge construction was commonplace. According to P.A.C. Spero & Co., "standardization was encouraged for straightforward crossings without special circumstances" (Spero 1995). Bridge No. 1603800 was constructed with parapet walls that deviate from the standard plan in that the walls have articulated coping stones, stylized openings, and Streamline Moderne influenced end blocks (MIHP form). There does not seem to be any explanation for the deviation from standard plan and the reason may have been that this bridge was located on one of the gateway roads into the Central Farm facilit of BARC. As noted in the DOE for BARC, the Civilian Conservation Corps (CCC) was associated with the property so it is possible that workers from this group helped to design and build the bridge so that it would fit in with the surroundings. Several mid-1930s concrete bridges on US 40 in Frederick and Howard Counties also exhibit stone cladding and distinctive architectural details; one of these, SHA Bridge No. 1303400, US 40 over Forest Park Road, lies within Patapsco Valley State Park and is near several park structures that were designed and built by the CCC.

A close examination reveals that this bridge has had some deterioration of materials, design, and workmanship, but it has not deteriorated enough to alter the integrity of the bridge. There have been no major alterations or repairs to the bridge and it retains all of its CDEs. The location remains the same and the setting is still mostly rural with only a small amount of commercial development to the northwest of the bridge. BARC remains a major experimental center and the bridge continues to provide access to the property from surrounding roadways. The overall feeling of the bridge is good. Due to the deviation from standard plan on the parapet walls, the structure is a potentially important example of a concrete slab bridge of its time period. Based on thi evaluation, Bridge No. 1603800 is recommended eligible for inclusion in the NRHP under Criterion C. Additional background research indicates that the bridge provided a transportation link between BARC and the local community as well as a link betweer different sections of the BARC campus during the period of major development and experimentation at the facility. Thus, this bridge is recommended eligible for listing in the NRHP under Criterion A. The bridge is not associated with a known person of local, regional, or national significance (Criterion B). Criterion D was not evaluated as part of the historic standing structures studies for this project.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ **Eligibility not recommended** _____

Criteria: ___A ___B ___C ___D **Considerations:** ___A ___B ___C ___D ___E ___F ___G

MHT Comments:

_____ _____

Reviewer, Office of Preservation Services **Date**

_____ _____

Reviewer, National Register Program **Date**

MIHP No. PG;61-27
SHA Bridge No. 1603800
MD 212 over Indian Creek
Prince George's County, Maryland

Photograph Log

Image File Name	Description of View
PG-61-27_2009-01-12_01.tif	South elevation, facing north
PG-61-27_2009-01-12_02.tif	North elevation, facing south
PG-61-27_2009-01-12_03.tif	North parapet wall, facing northeast
PG-61-27_2009-01-12_04.tif	South elevation pier, facing northwest
PG-61-27_2009-01-12_05.tif	Pier north end, facing south

Printed on Epson Premium Photo Paper Glossy with Epson UltraChrome Black Ink

Saved on Verbatim UltraLife Archival Grade DVD-R, AZO recording dye

MIHP No. PG;61-27

SHA Bridge No. 1603800 / MD 212 over Indian Creek

PG Co. MD

Kimberly Sebastyan

1/12/09

MD SHPO

South elevation facing north

1/5

MIHP No. PG, 61-27

MD 212 over

SHA Bridge 1603000 / Indian Run

PG Co. MD

K. Schestyen

1/12/09

MD SHPO

N. elev. facing S.

2/5

MIHP No. PG; 61-27

MD 212 over

SHA Bridge No. 16038 00/ Indian Run

PG Co. MD

K. Sebastyan

MD SHPO

1/12/09

N. parapet wall, facing NE

3/5

MIHP No. PG; 61-27

SHA Bridge No. 16038 00 / MD 212 over Indian Creek

PG Co. MD

K. Sebastyen

MD SHPO

1/12/09

S. elev. pier, facing NW

4/5

MIHP No. PG: 61-27

SHA Bridge No. 1603800 MD 212 over Indian Creek

PG Co. MD

K. Sebastyen

1/12/09

MD SHPO

Pier northend, facing S.

5/5

Maryland Historical Trust

Maryland Inventory of Historic Properties number: PG:61-27

Name: 16038/MD 212 over INDIAN CREEK

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X___ Eligibility Not Recommended _____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: _____

_____

_____

Reviewer, OPS: _Anne E. Bruder_____ Date: __3 April 2001____

Reviewer, NR Program: __Peter E. Kurtze_____ Date: __3 April 2001____

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. PG:61-27

SHA Bridge No. 16038 Bridge name MD 212 over Indian Creek

LOCATION:
Street/Road name and number [facility carried] MD 212

City/town Greenbelt Vicinity X

County Prince George's

This bridge projects over: Road____ Railway_____ Water X_____ Land ___

Ownership: State X County _____ Municipal _____ Other _____

HISTORIC STATUS:
Is the bridge located within a designated historic district? Yes _____ No X
National Register-listed district ____ National Register-determined-eligible district __
Locally-designated district _____ Other _____

Name of district _____

BRIDGE TYPE:
Timber Bridge _____:
Beam Bridge _____ Truss -Covered ___ Trestle ___ Timber-And-Concrete ___

Stone Arch Bridge _____

Metal Truss Bridge _____

Movable Bridge ____:
Swing _____ Bascule Single Leaf _ Bascule Multiple Leaf _____
Vertical Lift _____ Retractile_____ Pontoon _____

Metal Girder_____:
Rolled Girder _____ Rolled Girder Concrete Encased _____
Plate Girder _____ Plate Girder Concrete Encased _____

Metal Suspension _____

Metal Arch _____

Metal Cantilever _____

Concrete X:
Concrete Arch_____ Concrete Slab X Concrete Beam ___ Rigid Frame _____
Other _____ Type Name _____

DESCRIPTION:

Setting: Urban ____X____ **Small town** _____ **Rural** _____

Describe Setting:

Bridge No. 16038 carries MD 212 over Indian Creek. It is located in a suburban portion of Prince George's County. There is an office complex located nearby. The road runs in an east-west direction, and Indian Creek flows south-north.

Describe Superstructure and Substructure:

Bridge No. 16038 is a two span two-lane concrete slab bridge constructed in 1937. The superstructure comprises open concrete parapets and a concrete slab. The design of the parapets differentiate this structure from standard SHA designs constructed during the same time period. The parapets have articulated coping stones, stylized openings, and the end blocks are reminiscent of Streamline Moderne in their design. The superstructure is supported by concrete abutments, flared wingwalls, and a solid pier. These substructure elements are all decorated with molded chamfering, and the wingwalls have a simple cap. The approaches all have guiderails which are bolted into the parapet walls.

The most recent inspection of this bridge was completed in May 1995, and its condition was described as follows. The slab has hot sealed transverse cracks and hollow sounding areas. The reinforced concrete pier wall has fine vertical cracks with efflorescence and exudation. Both sides have moderate water abrasion with aggregate exposed. The south end of the pier has heavy to severe deterioration up to 6" deep with heavily rusted rebar exposed. This deterioration extends up to the top of the cap. The north side at the pier along the bottom edge has a 3' long spall with rusted rebar exposed. Both abutments exhibit efflorescence, cracking, water abrasion with aggregate exposed, some pop-outs, and hollow sounding areas. The wingwalls have light water abrasion and a few fine vertical cracks. The parapets have scaling with aggregate exposed.

Discuss Major Alterations:

According to available county records for this bridge, the structure has had no major alterations.

HISTORY:

WHEN was the bridge built (actual date or date range) 1937

This date is: Actual _____ **Estimated** ___X___

Source of date: Plaque ____ **Design plans** _X_ **County bridge files/inspection form** ___

Other (specify) State Highway Administration bridge files

WHY was the bridge built?

Local transportation needs

WHO was the designer?

Unknown

WHO was the builder?

Unknown

WHY was the bridge altered?

This structure has had no significant alterations since its construction.

Was this bridge built as part of an organized bridge-building campaign?
Unknown

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events _____ B- Person _____
C- Engineering/architectural character ___X___

Was the bridge constructed in response to significant events in Maryland or local history?
Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war-related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920 to 1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of $3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund [with an equal sum from the counties] the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?
Unknown.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?
No. This bridge is not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?
Yes. The vast majority of extant concrete slab bridges in Maryland constructed between 1920 and 1940 either used or were based upon standard SHA Design Sheets. Bridge No. 16038 is a significant example of its type due to the unusual design of its parapet walls. It has also retained the integrity of its original design and materials.

Does the bridge retain integrity of important elements described in Context Addendum?
Yes. This bridge retains both the integrity of its original design and materials. It has had no major alterations, and according to the most recent bridge inspection report is in good condition.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?
Unknown.

Should the bridge be given further study before an evaluation of its significance is made?
Yes. Further evaluation is necessary to determine National Register significance. This bridge is potentially a significant example of its type. Additional research concerning the history of this bridge and its relationship to the surrounding landscape may be useful in providing a more complete picture of the bridge's background.

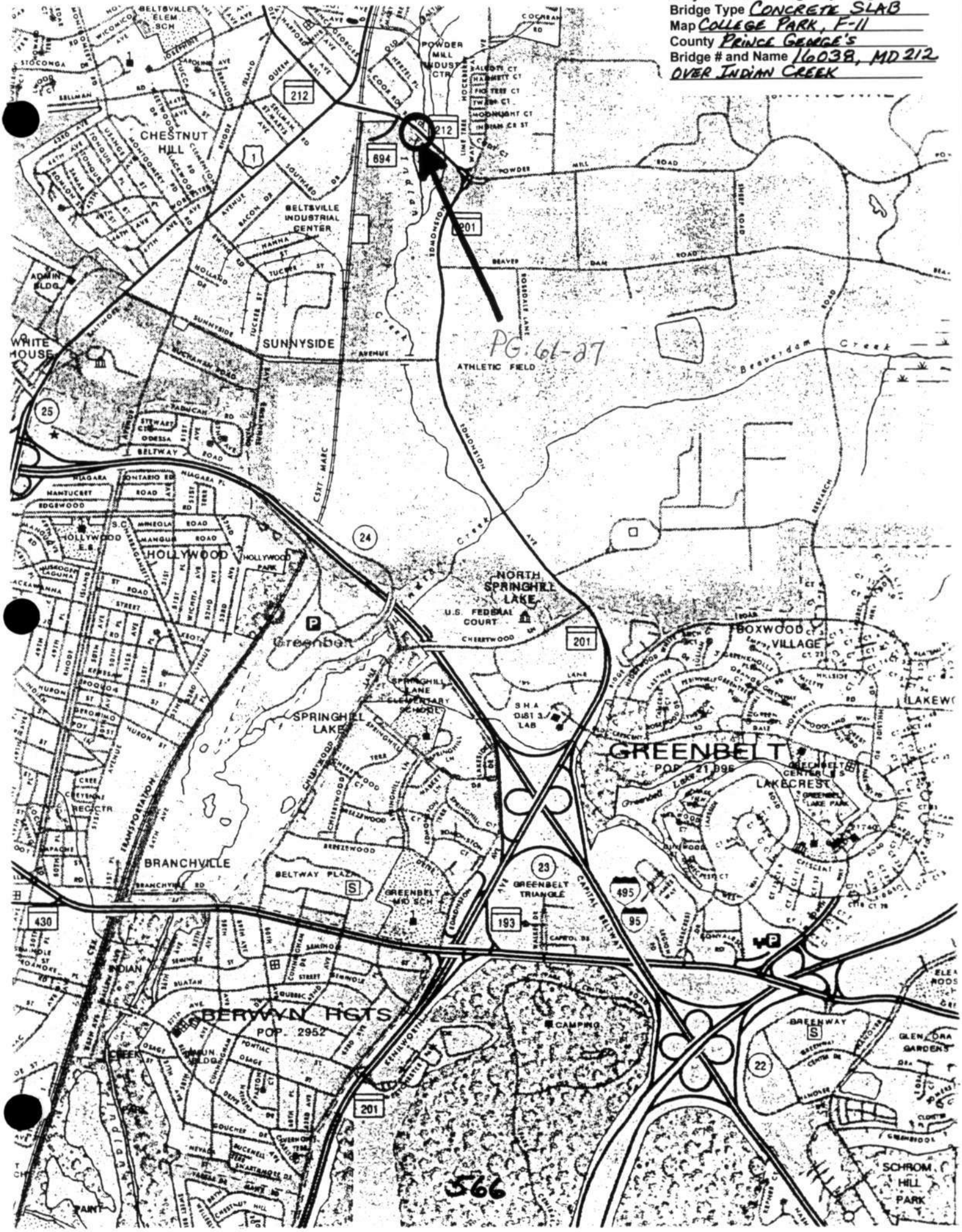
BIBLIOGRAPHY:

County inspection/bridge files _____ **SHA inspection/bridge files** X
Other (list):

SURVEYOR:

Date bridge recorded August 1995
Name of surveyor Leo Hirrell
Organization/Address P.A.C. Spero & Company; 40 West Chesapeake Avenue, Suite 412; Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX number** 410-296-1670

Maryland Historic Highway Bridges
Bridge Type CONCRETE SLAB
Map COLLEGE PARK, F-11
County PRINCE GEORGE'S
Bridge # and Name 16038, MD 212
OVER INDIAN CREEK



Inventory # PG: 61-27

Name 16038-MD 212 OVER INDIAN CREEK
County/State PRINCE GEORGES COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description EAST APPROACH LOOKING WEST

Number 14 of ~~24~~ 4

concrete slab

Inventory # PG:61-27

Name 16038-MD 212 OVER INDIAN CREEK
County/State PRINCE GEORGES COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description NORTH ELEVATION

Number 2 of 4

Inventory # PG:61-27

Name 16038- MD 212 OVER INDIAN CREEK
County/State PRINCE GEORGES COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description SOUTH ELEVATION

Number 3 ~~6~~ of ~~24~~ 4


LOC

Inventory # PG:61-27

Name 16038-MD212 OVER INDIAN CREEK
County/State PRINCE GEORGES COUNTY/MD
Name of Photographer WALLY KING
Date 1/95

Location of Negative SHA

Description WEST APPROACH LOOKING EAST

Number 4 of 4

MARYLAND HISTORICAL TRUST ADDENDUM SHEET
Montgomery-Prince George's Short-term Congestion Relief

Property Name: Bridge 16038
Survey No.: PG:61-27

Property Address MD 212 (Powder Mill Road) over Indian Creek, Beltsville vicinity, Prince George's County
Owner Name/Address State Highway Administration/ 707 N. Calvert Street, Baltimore, MD 21202
Year Built 1937

Description:

Bridge 16038 was previously surveyed in 1995, and was determined eligible for the National Register of Historic Places by the Interagency Review Committee in 1996.

The bridge is a 2-span, 2-lane concrete slab bridge. It has pierced parapets and stylized endblocks. The bridge is unchanged from the previous survey.

MHT CONCURRENCE:
Eligibility X recommended ____ not recommended
Criteria ___A ___B X C ___D **Considerations** ___A ___B ___C ___D ___E ___F ___G ___None
Comments:

Reviewer, Office of Preservation Services — Date: 1/29/99
Reviewer, NR program — Date: 2/2/99

Preparer:
P.A.C. Spero & Company
May 1998

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. PG:61-27

SHA Bridge No. 16038 Bridge name MD 212 over Indian Creek

LOCATION:
Street/Road name and number [facility carried] MD 212

City/town Greenbelt Vicinity X

County Prince George's

This bridge projects over: Road ____ Railway ____ Water X ____ Land ____

Ownership: State X County ____ Municipal ____ Other ____

HISTORIC STATUS:
Is the bridge located within a designated historic district? Yes ____ No X
National Register-listed district ____ National Register-determined-eligible district ____
Locally-designated district ____ Other ____

Name of district ____

BRIDGE TYPE:
Timber Bridge ____:
Beam Bridge ____ Truss -Covered ____ Trestle ____ Timber-And-Concrete ____

Stone Arch Bridge ____

Metal Truss Bridge ____

Movable Bridge ____:
Swing ____ Bascule Single Leaf ____ Bascule Multiple Leaf ____
Vertical Lift ____ Retractile ____ Pontoon ____

Metal Girder ____:
Rolled Girder ____ Rolled Girder Concrete Encased ____
Plate Girder ____ Plate Girder Concrete Encased ____

Metal Suspension ____

Metal Arch ____

Metal Cantilever ____

Concrete X:
Concrete Arch ____ Concrete Slab X Concrete Beam ____ Rigid Frame ____
Other ____ Type Name ____

DESCRIPTION:

Setting: Urban ___X___ **Small town** _____ **Rural** _____

Describe Setting:

Bridge No. 16038 carries MD 212 over Indian Creek. It is located in a suburban portion of Prince George's County. There is an office complex located nearby. The road runs in an east-west direction, and Indian Creek flows south-north.

Describe Superstructure and Substructure:

Bridge No. 16038 is a two span two-lane concrete slab bridge constructed in 1937. The superstructure comprises open concrete parapets and a concrete slab. The design of the parapets differentiate this structure from standard SHA designs constructed during the same time period. The parapets have articulated coping stones, stylized openings, and the end blocks are reminiscent of Streamline Moderne in their design. The superstructure is supported by concrete abutments, flared wingwalls, and a solid pier. These substructure elements are all decorated with molded chamfering, and the wingwalls have a simple cap. The approaches all have guiderails which are bolted into the parapet walls.

The most recent inspection of this bridge was completed in May 1995, and its condition was described as follows. The slab has hot sealed transverse cracks and hollow sounding areas. The reinforced concrete pier wall has fine vertical cracks with efflorescence and exudation. Both sides have moderate water abrasion with aggregate exposed. The south end of the pier has heavy to severe deterioration up to 6" deep with heavily rusted rebar exposed. This deterioration extends up to the top of the cap. The north side at the pier along the bottom edge has a 3' long spall with rusted rebar exposed. Both abutments exhibit efflorescence, cracking, water abrasion with aggregate exposed, some pop-outs, and hollow sounding areas. The wingwalls have light water abrasion and a few fine vertical cracks. The parapets have scaling with aggregate exposed.

Discuss Major Alterations:

According to available county records for this bridge, the structure has had no major alterations.

HISTORY:

WHEN was the bridge built (actual date or date range) 1937

This date is: Actual _____ **Estimated** ___X___

Source of date: Plaque ____ **Design plans** _X_ **County bridge files/inspection form** ___

Other (specify) State Highway Administration bridge files

WHY was the bridge built?
Local transportation needs

WHO was the designer?
Unknown

WHO was the builder?
Unknown

WHY was the bridge altered?
This structure has had no significant alterations since its construction.

Was this bridge built as part of an organized bridge-building campaign?
Unknown

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:
A - Events _____ B- Person _____
C- Engineering/architectural character ____X____

Was the bridge constructed in response to significant events in Maryland or local history?
Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war-related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920 to 1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of $3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund [with an equal sum from the counties] the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?
Unknown.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?
No. This bridge is not located in an area which may be eligible for historic designation.

Is the bridge a significant example of its type?
Yes. The vast majority of extant concrete slab bridges in Maryland constructed between 1920 and 1940 either used or were based upon standard SHA Design Sheets. Bridge No. 16038 is a significant example of its type due to the unusual design of its parapet walls. It has also retained the integrity of its original design and materials.

PG: 61-27

Does the bridge retain integrity of important elements described in Context Addendum?
Yes. This bridge retains both the integrity of its original design and materials. It has had no major alterations, and according to the most recent bridge inspection report is in good condition.

Is the bridge a significant example of the work of a manufacturer, designer. and/or engineer?
Unknown.

Should the bridge be given further study before an evaluation of its significance is made?
Yes. Further evaluation is necessary to determine National Register significance. This bridge is potentially a significant example of its type. Additional research concerning the history of this bridge and its relationship to the surrounding landscape may be useful in providing a more complete picture of the bridge's background.

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Other (list):

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Date bridge recorded August 1995
Name of surveyor Leo Hirrell
Organization/Address P.A.C. Spero & Company; 40 West Chesapeake Avenue, Suite 412; Baltimore, Maryland 21204
Phone number 410-296-1635 **FAX number** 410-296-1670

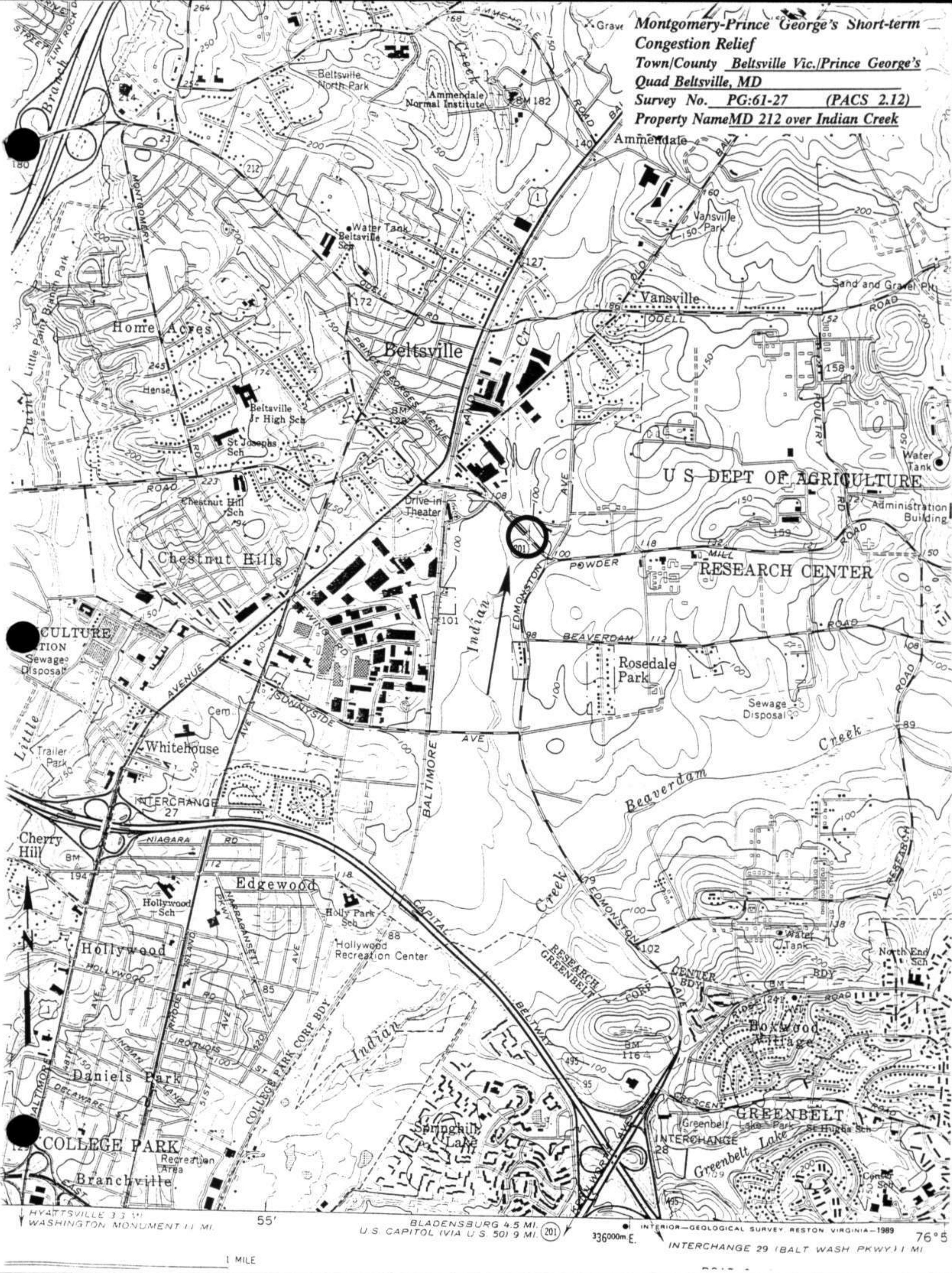
Montgomery-Prince George's Short-term Congestion Relief

Town/County *Beltsville Vic./Prince George's*

Quad *Beltsville, MD*

Survey No. *PG:61-27* *(PACS 2.12)*

Property Name *MD 212 over Indian Creek*




Precision

1 PG:61-27

2 Bridge 16038

3 Prince Georges Co. Md

4 Susan Taylor

5 5/98

6 MD SHPO

7 E approach

8 1 of 5

1 PG:61-27
2 Bridge 16038
3 Prince Georges Co, Md
4 Susan Taylor
5 5/98
6 MD SHPO
7 W approach
8 2 of 5

1 PG:61-27

2 Budge 16035

3 Prince Georges Co, Md

4 Susan Taylor

5 5/98

6 Md SHPO

7 N elevation

8 3 of 5

1 PG: 61-27

2 Bridge 16038

3 Prince Georges Co Md

4 Susan Taylor

5 5/98

6 MDSHPO

7 S elevation

8 4 of 5

1 PG:61-27

2 Bridge 16038

3 Prince George's Co, Md

4 Susan Taylor

5 5/98

6 MD SHPO

7 End Block, detail

8 5 of 5